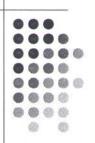
# **Molycorp Trustee Mtg**

Nov. 9, 2006 Albuquerque, NM



### **Technical Group Update**



- October 23<sup>rd</sup> Field Trip
  - Trustee and Molycorp technical personnel viewed each of the agreed upon restoration projects
  - Additional discussions occurred regarding placement, approach, monitoring, etc.
- Based on agreements reached in field, Chadwick et al. (GEI) developed draft detailed costs for each project

### **Agreed Upon Restoration Projects**



- Cabresto Creek Barrier & Restoration
- Columbine Creek Barrier
- Hatchery Upstream Passage
- Fawn Lake Riparian Improvements
- Anderson Ranch Wetland Preservation
- \$20 M for Bitter Creek Restoration
- \$2.5 MM towards Questa WWTP

### **Timeline**



- February 1, 2007
  - Lodge consent decree
- November 30, 2006
  - Agreed upon costs
  - Proposed consent decree language
  - · Identify contents of administrative record
  - Easement and access agreement drafted

#### Cabresto Creek Barrier & Restoration

- Fish Passage Barrier
  - Located above Bonito Cyn, just onto USFS property
  - · Engineering costs
    - Assume a conventional engineering and design development process will be used
    - Includes integration of hydrologic, geotechnical, structural, fish behavioral, and general civil engineering principles
  - Biological costs
    - Fish removal 2 times/yr (July and Sept.) for 3 consecutive years
    - Fish monitoring in 5th, 8th, and 11th year
  - Permitting costs included for both the engineering and biological aspects of the project
- Upstream Restoration
  - Several enclosures and some bank stabilization
  - · Costs as per George Long

#### Columbine Creek Barrier & Preservation



- Fish Passage Barrier
  - Located between Red River and lower culvert
  - Engineering costs
    - Assume a conventional engineering and design development process will be used
    - Includes integration of hydrologic, geotechnical, structural, fish behavioral, and general civil engineering principles
  - Biological costs
    - Fish removal 2 times/yr (July and Sept.) for 3 consecutive years
    - Fish monitoring in 5th, 8th, and 11th year
  - Permitting costs included for both the engineering and biological aspects of the project

# Red River Hatchery Fish Passage



- Dam and replacement of existing 2 cfs Fishing Pond Intake
  - Engineering costs include:
    - Concrete removal, soil placement, excavation of deeper thalweg, deposition of excavated material along shoreline, post demolition remobilization, etc.
  - Biological costs include monitoring in 4<sup>th</sup>, 7<sup>th</sup>, and 10<sup>th</sup> years after dam removal
  - Permitting costs included for both the engineering and biological aspects of the project

### Fawn Lake Riparian Improvement



- Engineering & Biological costs
  - Removal of access ramp and asphalt pad
  - Restoration to natural grade and highway embankment gradient
  - · Re-plant to natural vegetation
  - · Guardrail at highway
  - Moving (and replanting) about 10 spruce trees to allow for excavation in primary and flood channels
  - Thinning small trees
  - Protection of power pole in floodplain
- Permitting costs included for both the engineering and biological aspects of the project

### **Anderson Ranch**



- 225 acres of wetland and upland habitat
- Engineering costs
  - Site Investigations and Easement costs
  - · Construction and maintenance of fence
  - Monitoring from 2010 to 2026
- Biological Costs
  - · Baseline monitoring
  - Monitoring from 2010 through 2024 (total of 6 trips)

# **Other Projects**



- \$20,000 for restoration work in upper Bitter Creek
- \$2,500,000 for Questa WWTP Upgrade